UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,260	04/13/2005	James Scott Tarbell	PTB-4942-5	4670

23117   7590   07/27/2009
NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER
CHOI, YUK TING

ART UNIT	PAPER NUMBER
2164	

MAIL DATE	DELIVERY MODE
07/27/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *10 July 2009*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *46-91* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *46-91* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *13 April 2005* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
        1. ☐ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____.
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible

for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has

been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37

CFR 1.114. Applicant's submission filed on 07/10/2009 has been entered.

Response to Amendment

2.   This office action is in response to applicant's communication filed on 7/10/2009 in

response to PTO Office Action mailed 10/10/2008. The Applicant's remarks and amendments

to the claims were considered with the results as follows.

3.   In response to the last Office Action, claims 90 and 91 have been amended. Claims 92

and 93 are cancelled. As a result, claims 46-91 are pending in this office action.

4.   Applicant's amendment with respect to the rejections to 35 USC 101 has been fully

considered, and the rejection has been withdrawn.

Response to Arguments

5.   Applicant's arguments with respect to claims 46-91 have been fully considered but they

are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 46-56, 62-66, 68-78 and 84-91 are rejected under 35 U.S.C. 103(a) as being

unpatentable by Bills (US PA Pub 2002/0152195 A1) and in view of Tanaka (US Patent

6,665,735).

Referring to claim 46, Bills discloses disclose a computer implemented method in a

database journal changes to system objects in an operating system (*See para. [0005] and para.*

[0014], journaling objects changes, e.g. journaling objects when objects are created or deleted

in an operating system) with a processor (*See Fig. 1, item 21*), the method including:

generating copies of system objects for journaling (*See para. [0058], journaling an object*

when a system creates or modifies an existing object).

Bills does not explicitly disclose executing a dummy function in place of a system

function when the system function is called and executing the system function under operation

of the dummy function.

Tanaka discloses executing a dummy function in place of a system function when the

system function is called (*See col 3, lines 60-65 and col 2, lines 48-55, replacing external or*

supplemental function for an operating system function);

executing the system function under operation of the dummy function (S*ee col 2, lines*

59 and col, 6 and lines 32, executing the external or supplemental function or process);

changed execution of the system function and completing execution of the dummy function (*See*

col 6, lines 8-11, changed the original function func1 execution and completing execution of

external or supplemental function func2).

Hence, it would have been obvious to one having ordinary skill in the art at the time of

invention was made to modify Bills's system to comprise: executing a dummy function in place

of a system function when the system function is called, as taught by Tanaka, in order to

expand a programming function without altering the original programming function of the system

(See col 2, lines 58-60).

As to claims 47 and 69, Tanaka also discloses the dummy function by assigning a

duplicate calling name to the dummy function and arranging the processor to pre-empt the

execution of the system function (*See col 2, lines 53-58, functions having the same names as*

the replaced function is executed in place of an original system function).

As to claims 48 and 70, Tanaka also discloses the dummy function includes an exit

point and an exit program is registered for the exit point (*See col 7, lines 55-65, when original*

system func1 is called, the original system func1 routine passed control to the external or

supplement func1, the external or supplement func1 takes control and adds the new routine or

exit program for execution).

As to claims 49 and 71, Tanaka also discloses a method wherein during operation of

the dummy function the exit program is executed (*See col 7, lines 60-65 and col 6, lines 8-10,*

executing the external or supplement routine which added to original system function, whereas

that external or supplement routine is a program).

As to claims 50 and 72, Tanaka also discloses a method wherein the execution of the system function is handled by the exit program (*See col 7, lines 55-65, when original system func1 is called, the original system func1 routine passed control to the external or supplement func1, the original system func1 is handled by the external or supplement func1 routine or program*).

As to claims 51, 52, 73 and 74, Bills discloses captures and generates copies of the system objects (*See para. [0058], captures the object changes and journals objects*)

Bills does not explicitly disclose the exit program.

Tanaka discloses the exit program (*See col 7, lines 50-65, the original system func1 routine passed control to the external or supplement func1 and executed the external or supplement routine which added to original system function, whereas that external or supplement routine is a program*).

Hence, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify Bills's system to comprise: the exit program, as taught by Tanaka, in order to exit out a programming function when necessary.

As to claims 53 and 75, Tanaka also discloses the execution of the system function is handled by the dummy function (*See col 7, lines 55-65, when original system func1 is called, the original system func1 routine passed control to the external or supplement system func1, the original system func1 is handled by the external or supplement system func1 routine*).

As to claims 54, 55, 76 and 77, Bills disclose the function captured the system objects and generates copies of the system objects (*See para. [0058], captures the object to see if there are any modification and journals the objects*).

Bills does not explicitly disclose the dummy function and exit program.

Tanaka discloses the dummy function and exit program (*See col 7, lines 50-65, the original system func1 routine passed control to the external or supplement func1 and executed the external or supplement routine, whereas that external or supplement routine is a program*).

Hence, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify Bills's system to comprise: the exit program, as taught by Tanaka, in order to exit out a programming function when necessary.

As to claims 56 and 78, Bills disclose the copies of the system objects are saved to disk (*See para. [0038], the objects are stored in file system*).

As to claims 62 and 84, Bills also disclose the system objects are one or more of the set of program objects, configuration objects, queues, and space/memory mapped objects (*See para. [0007], objects are programs, files and libraries*).

As to claims 63 and 85, Bills also discloses the changed system objects are those system objects that have been created, changed or deleted (*See para. [0005], para [0014] and para. [0058]*).

As to claims 64 and 86, Bills inherently discloses wherein the system functions are OS/400 system functions (See para. [0004], *the system functions are operating system functions, and one ordinary skill would recognize that operating system can be OS/400*).

As to claim 65, Bills discloses i) executing the system function during which changes to system objects occur (*See para [0058], executes the automatic journaling function when an object modifies or changes*); and ii) journaling changes to system objects during execution of the system function (*See para [0058], journaling the objects*).

As to claim 66, Bills also discloses a method as claimed in claim 65 wherein changes of system objects are journal by integrating journaling commands into the code of the system functions(*See para [0006], the journaling routine is a program included in the operating system modules*).

Referring to claim 68, Bills discloses a system for journaling in a database journal hanges to system object including: a processor adapted to generate copies of system objects for journaling (*See para. [0005] and para.[0014], journaling objects changes, e.g. journaling objects when objects are created or deleted in an operating system;* and memory for use by the processor during execution *(See Fig. 1 , system memory)*

Bills does not explicitly disclose executing a dummy function in place of a system function when the system function is called and executing the system function under operation of the dummy function.

Tanaka discloses executing a dummy function in place of a system function when the system function is called (*See col 3, lines 60-65 and col 2, lines 48-55, replacing external or supplemental function for an operating system function*);

executing the system function under operation of the dummy function (*See col 2, lines 59 and col, 6 and lines 32, executing the external or supplemental function or process*); changed execution of the system function and completing execution of the dummy function (*See col 6, lines 8-11, changed the original function func1 execution and completing execution of external or supplemental function func2*).

Hence, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify Bills's system to comprise: executing a dummy function in place

of a system function when the system function is called, as taught by Tanaka, in order to expand a programming function without altering the original programming function of the system (See col 2, lines 58-60).

As to claim 87, Bills in view of Tanaka inherently discloses wherein the processor is operating under the OS/400 operating system (*See Bills, par 31, lines 1-2, the system functions are operating system functions, and one ordinary skill would recognize that operating system can be OS/400, also see col 5, lines 4-5, processing unit*).

As to claim 88, Bills also discloses a computer system for effecting the method of claim 46 (*See Fig 1*).

As to claim 89, Bills also discloses a computer system for effecting the method of claim 65 (*See Fig 1*).

As to claim 90, Tanaka also discloses a computer readable storage medium tangibly storing software executable by a computer for executing the method of claim 46 (*See col 3, lines 25-26*).

As to claim 91, Bills also discloses a computer readable storage medium tangibly storing software executable by a computer for executing the method of claim 65 (See Fig 1).

8.   Claims 57-59 and 79-81 are rejected under 35 U.S.C. 103(a) as being unpatentable by Bills (US PA Pub 2002/0152195 A1) in view of Tanaka (US Patent 6,665,735) and further in view of Owen (US PA Pub 2003/0217031 A1).

As to claims 57 and 79, Bills in view of Tanaka do not explicitly disclose the copies of the system objects are streamed to a database system for journaling.

Owen discloses the copies of the system objects are streamed to a database system for journaling (*See par 34, lines 1-3 and lines 8-14,sending the journal entries to the journal receiver and send to target system, then applies the journal entries to the target system, see also par 35, lines 7-8 and Fig. 5*).

Hence, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify Bills's system to comprise: the copies of the system objects are streamed to a database system for journaling, as taught by Owen, in order to send journal entries from one system to another to assure data integrity of the information system (See par 6, lines 1-3).

As to claims 58, 59, 80 and 81, Bills in view of Tanaka do not explicitly disclose the database system is incorporated with a replication system, replicates the copies of the system objects to one or more local or remote databases.

Owen disclose the database system is incorporated with a replication system, replicates the copies of the system objects to one or more local or remote databases (*See par 34, lines 13-18 and Fig. 5, replicating the received journal entries from the journal applying software, the replicated files are reflected in local database*).

Hence, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify Bills's system to comprise the database system is incorporated with a replication system, replicates the copies of the system objects to one or more local or remote databases, as taught by Owen, in order to send journal changes from one system to another to assure data integrity of the information system and to minimize excessive journal data that need to be send (*See par 6, lines 1-6*).

9.   Claims 60, 61, 82 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable by

Bills (US PA Pub 2002/0152195 A1) in view of Tanaka (US Patent 6,665,735) and further in

view of Suzuki (US Patent 6,829, 768 B1).

As to claims 60 and 61, Bills in view of Tanaka do not explicitly disclose wherein

messages or exceptions generated by the system function are captured into a queue and the

messages or exceptions are forward back to the process by a function.

Suzuki discloses messages or exceptions generated by the system function are

captured into a queue and the messages or exceptions are forward back to the original process,

(*See col 1, lines 50-60 and col 4, lines 33-37, the adaptor function has a queue manager to*

captured messages in a queue and forward back to the SDL process, the SDL process is

executing operation system tasks).

Hence, it would have been obvious to one having ordinary skill in the art at the time of

invention was made to modify Bills's system to comprise messages or exceptions generated by

the system function are captured into a queue and the messages or exceptions are forward

back to the process by a function, as taught by Suzuki, in order to integrate an external or

supplement environment with an original system environment to expand the operations or

library of the original system environment and maintain communication between the two

environments (*See col 1, lines 20-22 and lines 42-27*).

As to claims 82 and 83, they recite essentially the same limitations as claims 60 and

61; therefore, they are rejected based on the same reasons as set forth in claims 60 and 61

10.   Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable by Bills (US PA Pub

2002/0152195 A1) in view of Tanaka (US Patent 6,665,735) and further in view of Cloud (US

Patent 6,253,369 B1).

As to claim 67, Bills does not explicitly disclose wherein changes to system objects are

journeyed by associating exit points.

Cloud discloses changes to system objects are journaled by associating exit points with

the system function and calling an exit program during execution of the system function (*See col

8, lines 27-30 and lines 35-38, allows to custom user exit points for journaling and calling a

custom-coded program during executing the system workflow*).

Hence, it would have been obvious to one having ordinary skill in the art at the time of

invention was made to modify Tanaka's system to comprise journaled by associating exit points

with the system function and calling an exit program during execution of the system function, as

taught by Cloud, in order to permit integration of two different system environment with a

minimum of integration effort (*See col 3, lines 20-23*).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Yuk Choi whose telephone number is (571) 270-1637. The examiner

can normally be reached on 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. C./
Examiner, Art Unit 2164

/Sathyanarayan Pannala/

Primary Examiner, Art Unit 2164